

10/578,660

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L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1138736 CAPLUS

DOCUMENT NUMBER: 151:344965

TITLE: Surface modification of nitinol by using abrasive blasting for dopant impregnation

INVENTOR(S): O'Donoghue, John Gerard; O'Hare, Peter

PATENT ASSIGNEE(S): Enbio Limited, Ire.

SOURCE: PCT Int. Appl., 47pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009112851	A1	20090917	WO 2009-GB702	20090313
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: US 2008-36109P P 20080313

AB Disclosed herein are methods of modifying a nitinol surface by using abrasive blasting techniques. The surface modification can be performed by abrasively blasting the surface and delivering at least one dopant from one or more fluid jets to cause the at least one dopant to impregnate and/or coat the nitinol surface. The nitinol surface can form a portion or all of a medical device, such as an implantable medical device, e.g., a stent. Thus, nitinol stents were surface modified by delivering hydroxyapatite as the dopant in one particle stream and alumina bead as the abrasive in a sep. particle stream using a twin micro-blaster setup.

IT 123948-87-8, Topotecan

RL: TEM (Technical or engineered material use); THU (Therapeutic use);

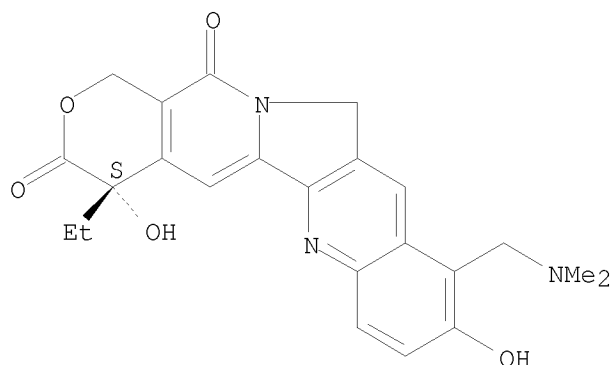
BIOL (Biological study); USES (Uses)

(surface modification of nitinol by using abrasive blasting for dopant impregnation)

RN 123948-87-8 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:435932 CAPLUS

DOCUMENT NUMBER: 146:428594

TITLE: Novel crystalline form of topotecan hydrochloride

INVENTOR(S): Pathi, Srinivas Laxminarayan; Kanathala, Shashi Rekha; Gangrade, Manish Gopaldas; Kankan, Rajendra Narayanrao; Rao, Dharmaraj Ramachandra

PATENT ASSIGNEE(S): Cipla Limited, India; Curtis, Philip Anthony

SOURCE: PCT Int. Appl., 18pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007042799	A1	20070419	WO 2006-GB3768	20061010
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2005MU01274	A	20070629	IN 2005-MU1274	20051010
US 20070105885	A1	20070510	US 2006-539932	20061010
EP 1943253	A1	20080716	EP 2006-794718	20061010
R: DE, FR, GB, TR				
KR 2008068052	A	20080722	KR 2008-711144	20080509
PRIORITY APPLN. INFO.:				
			IN 2005-MU1274	A 20051010
			WO 2006-GB3768	W 20061010

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

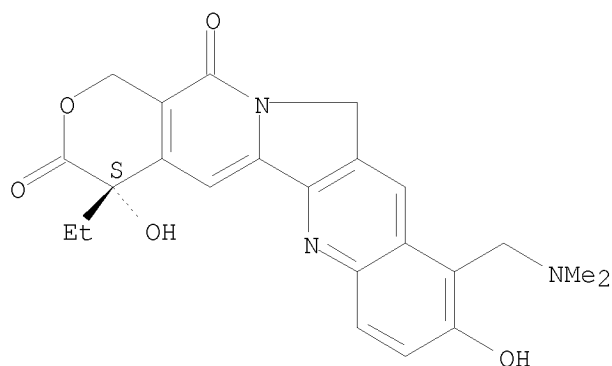
AB The invention relates to a novel crystalline form of topotecan hydrochloride, and methods of making the same. Thus, 10.0 g of topotecan hydrochloride pentahydrate was suspended in 100 mL of methanol and stirred at

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25-30° for 1 h and further chilled to 10-15° and stirred for 1 h at 10-15°C. The resulting solid was filtered and washed with 5 mL of methanol. The solid was dried in vacuum at 25-30° for 5 h, followed by drying at 30-35° C for 36 h to get 6.0 g of Form 'A'.

IT 119413-54-6, Topotecan hydrochloride 123948-87-8,
Topotecan
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(novel crystalline form of hydrochloride topotecan)
RN 119413-54-6 CAPLUS
CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,
10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, hydrochloride (1:1),
(4S)- (CA INDEX NAME)

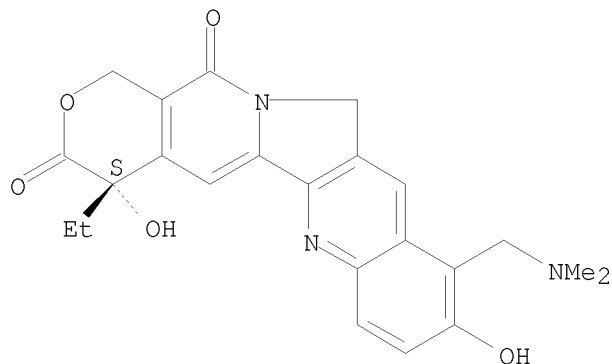
Absolute stereochemistry.



● HCl

RN 123948-87-8 CAPLUS
CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,
10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:160304 CAPLUS

DOCUMENT NUMBER: 144:318801

TITLE: A study of variable hydration states in topotecan hydrochloride

AUTHOR(S): Vogt, Frederick G.; Dell'Orco, Philip C.; Diederich, Ann. M.; Su, Qiaogong; Wood, Jeffery L.; Zuber, Gary E.; Katrincic, Lee M.; Mueller, Ronald L.; Busby, David J.; DeBrosse, Charles W.

CORPORATE SOURCE: GlaxoSmithKline plc., Chemical and Pharmaceutical Development, King of Prussia, PA, 19406, USA

SOURCE: Journal of Pharmaceutical and Biomedical Analysis (2006), 40(5), 1080-1088

CODEN: JPBADA; ISSN: 0731-7085

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Topotecan hydrochloride, a pharmaceutical compound developed as a treatment for cancer, exhibits variable hydration states in a crystalline solid form chosen for manufacturing. This variability requires addnl. controls for successful development, and presents a characterization and detection challenge for anal. methods. In this study, overall water content was determined by Karl Fischer titration and thermogravimetric anal. (TGA) on topotecan HCl equilibrated at different relative humidity levels. These results, when combined with information obtained from dynamic water vapor sorption and differential scanning calorimetry (DSC), indicate that this form of topotecan HCl contains 3 mol of water integral to the crystalline structure and up to two addnl. moles of water depending on the relative humidity. Powder x-ray diffraction expts. did not detect significant differences in topotecan HCl samples equilibrated at trihydrate and pentahydrate states, and showed that the crystal lattice dimensions are not affected unless the form is dried below the trihydrate state. This behavior is typical of crystal structures with channels that can accommodate addnl. loosely bound water. To study the role of the loosely bound water in the crystal structure in more detail, solid-state ^{13}C and ^{15}N NMR were used to examine the differences between the hydration states. Both the trihydrate and pentahydrate states yielded similar solid-state NMR spectra, consistent with the lack of change in the crystal lattice. However, minor but readily detectable differences in the ^{13}C spectra are observed with changes in water content. Interpretation of these data suggests that the loosely bound channel water is hydrogen-bonding to specific portions of the topotecan parent mol. Topotecan HCl trihydrate was hydrated with D_2O vapor to confirm the nature and location of the channel water using ^{13}C and ^2H solid-state NMR. Despite the detectable association of the channel water with hydrogen bonding sites on the topotecan mol., ^2H quadrupolar echo expts. indicate that the channel water is highly mobile at room temperature and at -60° .

IT 119413-54-6, Topotecan hydrochloride

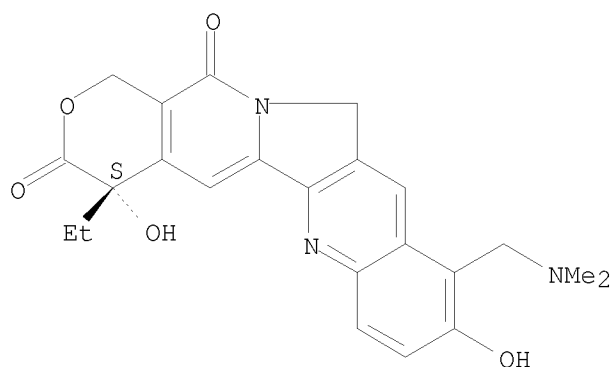
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(variable hydration states in topotecan hydrochloride)

RN 119413-54-6 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, hydrochloride (1:1), (4S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
 REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:451134 CAPLUS

DOCUMENT NUMBER: 142:487518

TITLE: Preparation of novel crystalline form of topotecan monohydrochloride pentahydrate for treatment of viral and cancer-related diseases

INVENTOR(S): Dell'orco, Philip C.; Diederich, Ann Marie; Su, Qiaogang; Wood, Jeffrey Lee

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005046608	A2	20050526	WO 2004-US37626	20041112
WO 2005046608	A3	20051103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004289318	A1	20050526	AU 2004-289318	20041112
CA 2545876	A1	20050526	CA 2004-2545876	20041112
EP 1689400	A2	20060816	EP 2004-810731	20041112
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
CN	1913897	A	20070214	CN 2004-80040300 20041112
BR	2004016366	A	20070313	BR 2004-16366 20041112
JP	2007510751	T	20070426	JP 2006-539849 20041112
RU	2352572	C2	20090420	RU 2006-120422 20041112
IN	2006DN02454	A	20070413	IN 2006-DN2454 20060502
ZA	2006003508	A	20080227	ZA 2006-3508 20060503
US	20070117832	A1	20070524	US 2006-578660 20060509
KR	2006122847	A	20061130	KR 2006-709179 20060511
MX	2006005378	A	20060714	MX 2006-5378 20060512
NO	2006002616	A	20060712	NO 2006-2616 20060607
PRIORITY APPLN. INFO.:			US 2003-519160P	P 20031112
			US 2003-524574P	P 20031124
			WO 2004-US37626	W 20041112

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

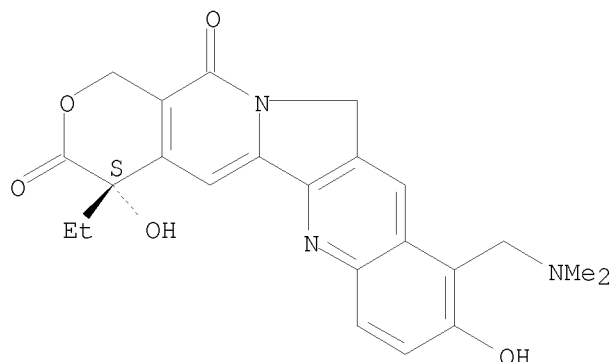
AB Disclosed is a novel crystalline form of topotecan monohydrochloride pentahydrate, corresponding pharmaceutical compns., methods of preparation and/or use thereof to treat viral and/or cancer-related diseases. For example, topotecan monohydrochloride (6.00 kg) was dissolved in a mixture of acetone (50.4 L, 8.4 vols.) and 0.05 N HCl (26.1 L, 4.4 vols.) by heating to 58°. The resulting solution was cooled at a rate of about 1°/min, with stirring, to 40°, seeded with topotecan monohydrochloride pentahydrate seed material (5.9 g), and held at 35° for 1 h, during which time crystallization occurred. The resulting slurry was cooled to 0° at a rate of about 0.25°/min. The reaction product, topotecan monohydrochloride pentahydrate, was isolated by filtration and dried at 32° and -0.76 barG for 62 h while passing a vigorous stream of nitrogen through the vessel to yield 4.597 kg.

IT 119413-54-6, Topotecan hydrochloride
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (preparation of crystalline form of topotecan monohydrochloride pentahydrate for treatment of viral and cancer-related diseases)

RN 119413-54-6 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, hydrochloride (1:1), (4S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

10/578,660

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN
RE CITED REFERENCES

- (1) Enbio Ltd; WO 2008033867 A 2008 CAPLUS
- (2) Hossainy Syed F; US 20050238686 A1 2005
- (3) Lee Michael J; US 20070288084 A1 2007
- (4) Pacetti Stephen D; US 6663664 B1 2003
- (5) Stinson Jonathan Swift; US 20030028241 A1 2003
- (6) Wu Steven Z; US 6805898 B1 2004 CAPLUS

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN
RE CITED REFERENCES

- (1) Chen, M; CHINESE JOURNAL OF BIOCHEMICAL PHARMACEUTICS 2005, V26(5), P279
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- (2) Diederich, A; WO 2005046608 A2 2005 CAPLUS
- (3) Vogt; JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS 2006, V40(5), P1080
CAPLUS

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(FILE 'HOME' ENTERED AT 15:36:55 ON 12 JAN 2010)

FILE 'REGISTRY' ENTERED AT 15:37:20 ON 12 JAN 2010
E TOPOTECAN/CN

L1 1 S E3
L2 1 S E5
L3 2 S L1 OR L2

FILE 'CAPLUS' ENTERED AT 15:38:16 ON 12 JAN 2010

L4 2884 S L3
L5 6604 S PENTAHYDRATE?
L6 4 S L4 AND L5

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